Atty. Dkt. No. 29250-001077/US Lucent Ref.: Balachandran 36-20-33-8

Substitute Specification

What is claimed is:

1. A method of signaling information to a group of users. comprising:

assigning at least one indicator bit of a sequence of indicator bits to indicate a transmission of signaling information related to broadcast-multicast service that is related to the group; and

transmitting the sequence to the group and the signaling information related to the group.

2. The method of claim 1, wherein the sequence is transmitted on a first channel and the broadcast-multicast service related signaling information is transmitted on a second channel.

3. The method of claim 2, wherein

the first channel is a quick paging channel that is slotted and sub-divided into quarter slots; and

the assigning step includes assigning one or more indicator bits to specified quarter-slots of the quick paging channel.

4. The method of claim 1, wherein

the indicator bit is a Broadcast Service Parameters Message (BSPM) indicator informing at least one group of a BSPM transmission,

the group is a broadcast-multicast (BCMC) group, and

the BSPM includes signaling information intended for one or more BCMC groups.

5. The method of claim 2, wherein the assigning step includes assigning at least one indicator for broadcast-multicast service content flows on a slot of the first channel, the slot being 100 ms offset from a specified slot on the second channel.

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6. The method of claim 5, wherein

the first channel is one of a paging channel and a common control channel, and

the specified slot is a broadcast slot of the second channel.

7. The method of claim 5, wherein the specified slot is a given broadcast-multicast

slot of the second channel.

8. A method of receiving signaling information in a communication network

supporting a broadcast-multicast service, comprising:

decoding a first channel containing at least one indicator related to signaling

information for a broadcast-multicast service to determine whether to monitor a

second channel for the signaling information.

9. The method of claim 8, wherein

the first channel is a quick paging channel,

the second channel is one of a paging channel and a common control

channel.

the at least one indicator is a Broadcast Service Parameters Message

(BSPM) indicator informing one or more groups of users of a BSPM transmission to

the groups, the BSPM transmission containing signaling information for a broadcast-

multicast service.

10. The method of claim 8, further comprising:

monitoring a slot on the second channel that follows the guick paging channel

slot for a BSPM transmission, if the decoding step determines that the BSPM

indicator(s) are enabled, else skipping the monitoring step if at least one of the

BSPM indicator(s) is not enabled.

11. The method of claim 10, wherein the slot on the second channel is one of a

broadcast slot and a broadcast-multicast (BCMC) slot.

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12. A method of signaling a group of users in a communication network supporting a broadcast-multicast service, comprising:

transmitting a channel containing signaling information to the group, the channel including at least one indicator in a given position of a slot of the channel, the indicator mapped to signaling information for enabling unique flow identification of a given broadcast-multicast service content flow subscribed to by one or more users in the group.

13. The method of claim 12, wherein

multicast service.

the channel is a quick paging channel, a slot of the quick paging channel further comprised of four quarter slots, at least one indicator per quarter slot, and the at least one indicator is a Broadcast Service Parameters Message (BSPM) indicator informing one or more groups of a BSPM transmission to the groups, the BSPM transmission containing signaling information for a broadcast-

14. The method of claim 13, further comprising

determining which BSPM indicator is related to the group using a mobile hashing procedure based on an identification number.

15. A method of receiving signaling information at a group of users in a communication network supporting a broadcast-multicast service, comprising:

decoding a first channel containing at least one indicator mapped to signaling information for enabling unique flow identification for a given broadcast-multicast service content flow subscribed to by one or more users of the group, to determine whether to monitor a second channel for the signaling information.

16. The method of claim 15, wherein the first channel is a quick paging channel,

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the second channel is one of a paging channel and a common control channel.

the at least one indicator is a Broadcast Service Parameters Message (BSPM) indicator informing the group of a BSPM transmission to the group, the BSPM transmission containing signaling information for a broadcast-multicast service.

17. The method of claim 16, further comprising, for one or more users of a group:

first monitoring a slot of the quick paging channel for BSPM indicators corresponding to one or more broadcast-multicast service content flows subscribed to by one or more users of the group; and

second monitoring a slot of the send channel that follows the quick paging channel slot for a BSPM transmission, if the decoding step determines that the two BSPM indicators are enabled for at least one of the subscribed to broadcast-multicast service content flows, else skipping the second monitoring step if at least one of the BSPM indicator(s) is not enabled.

- 18. The method of claim 17, wherein the slot on the second channel is one of a broadcast slot and a broadcast-multicast (BCMC) slot.
- 19. A method of signaling a group of users in a communication network supporting a broadcast-multicast service, comprising:

transmitting a channel to the group, the channel including a paging slot containing signaling information for a broadcast-multicast service subscribed to by one or more users of the group.

20. The method of claim 19, wherein the channel is a paging channel or a common control channel.

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21. The method of claim 19, wherein the transmitting step includes transmitting a Broadcast Service Parameters Message (BSPM) containing signaling information for a broadcast-multicast service to one or more users of the group on a given broadcast-multicast (BCMC) slot of the channel.

22. The method of claim 21, wherein

the BCMC slot is a first slot of a BCMC paging cycle on the channel, and the BCMC paging cycle is different in duration than a broadcast paging cycle of a broadcast slot on the channel.

- 23. The method of claim 22, wherein the BCMC paging cycle has a duration of B + N, where N is a positive integer (N=0, 1, ... N-1) and B is defined by B= 2^{i*} 16, where i is a configuration parameter bounded by i_i and i_2 , ($i_1 \le i \le i_2$), and where i_i and i_2 are adapted to assume a positive integer or negative integer value.
- 24. A method of signaling information to a group of users in a communication network supporting a broadcast-multicast service, comprising:

assigning at least one indicator related to signaling information for a broadcast-multicast service on a first channel;

transmitting the first channel to the group; and

transmitting a second channel including a slot containing the signaling information for a broadcast-multicast service subscribed to by one or more users of the group.

- 25. The method of claim 24, wherein the slot on the second channel is one of a broadcast slot and a broadcast-multicast (BCMC) slot.
- 26. The method of claim 24, wherein

the first channel is a quick paging channel,

the second channel is one of a paging channel and a control channel,

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the indicator is a Broadcast Service Parameters Message (BSPM) indicator informing the group of a BSPM in a given slot of the second channel, the BSPM containing signaling information for a broadcast-multicast service to one or more users of the group.

- 27. The method of claim 26, wherein the assigning step includes assigning two BSPM indicators for broadcast-multicast service content flows on a slot of the first channel, the slot being 100 ms offset from a slot on the second channel that contains the broadcast-multicast service content.
- 28. A method of signaling information to a group of users in a communication network supporting a broadcast-multicast service, comprising:

transmitting signaling information together with broadcast-multicast service content on a traffic channel to one or more users of the group.

29. A method of signaling information to a group of users in a communication network supporting a broadcast-multicast service, comprising:

first transmitting one part of signaling information on a first channel, second transmitting another part of the signaling information on a second channel carrying broadcast-multicast service content to one or more users of the group.

- 30. The method of claim 29, wherein the first transmitting step includes transmitting at least one of a broadcast-multicast service content identifier and logical to physical channel mapping data on one of a paging channel and control channel.
- 31. The method of claim 29, wherein the second transmitting step includes transmitting at least one of radio channel configuration, neighbor list data for broadcast-multicast service content, data rate, frame size, channelization code data

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and multiplexing options together with broadcast-multicast service content on a broadcast supplemental channel to one or more users of the group.